

Certification issues that must be addressed are possible loss of aircraft-supplied electrical power, aircraft supplied data, failures modes, environmental effects including lightning strikes and high intensity radiated fields (HIRF), and software design.

The FAA finds that under the provisions of § 21.16 of the FAR, additional safety standards must be applied to the Hamilton Standard electronic propeller control for Model 247F propellers to demonstrate that it is capable of acceptable operation.

Type Certification Basis

Under the provisions of § 21.17 of the FAR, Hamilton Standard must show that the Model 247F propeller meets the requirements of the applicable regulations in effect on the date of the application. Those FAR's are § 21.21 and part 35, effective February 1, 1965, as amended.

The Administrator finds that the applicable airworthiness regulations in part 35, as amended, do not contain adequate or appropriate safety standards for the Model 247F propeller. Therefore, the Administrator prescribes special conditions under the provisions of § 21.16 to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with § 11.49 of the FAR after public notice and opportunity for comment, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101(b)(2).

Novel or Unusual Design Features

Because of the unusual design features of the Hamilton Standard Model 247F propeller with electronic propeller and pitch control, the FAA issues special conditions under § 21.16 of the FAR.

Discussion of Comments

Interested persons have been afforded the opportunity to participate in the making of these special conditions. Due consideration has been given to the comments received.

One commenter was concerned that the terms "unsafe conditions" and "unacceptable change" are vague and could lead to multiple interpretations if the terms were not defined in the special conditions.

The FAA agrees, and the term "unsafe conditions" is now defined in the special conditions and the term "unacceptable change" has been removed and replaced with the term "unsafe condition".

One commenter was concerned with system redundancy and stated that FAR 25.1309, its associated Advisory Circular and a Failure Modes Effects Analysis (FMEA) should be applied to the special condition.

The FAA disagrees. The special condition as stated in paragraph (a)(2) addresses the commenter's concern by requiring that the propeller be designed and constructed so that no single failure or malfunction, or probable combination of failures of electrical or electronic components of the propeller control system, result in an unsafe condition. Also, the propeller manufacturer includes a FMEA report as part of the data required for propeller certification. This same report is submitted to the airframe manufacturer for incorporation into aircraft certification documentation to show compliance with FAR 25.1309.

After careful review of the available data, including the comments noted above, the FAA determined that air safety and the public interest require the adoption of these special conditions with the changes discussed previously.

Conclusion

This action affects only Hamilton Standard Model 247F propeller with a new system of electronic propeller and pitch control. It is not a rule of general applicability and affects only the manufacturer who applied to the FAA for approval of these features on the aircraft.

List of Subjects in 14 CFR Part 35

Air transportation, Aircraft, Aviation safety, Safety.

The authority citation for these special conditions continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704; and 14 CFR 11.49 and 21.16.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Federal Aviation Administration (FAA), the following special conditions are issued as part of the type certification basis for the Hamilton Standard Model 247F propeller and pitch control system. Considering that electronic propeller and pitch control systems introduce potential failures that can result in unsafe conditions, the following special conditions are issued:

(a) Each propeller and pitch control system which relies on electrical and electronic means for normal operation must:

(1) Be designed and constructed so that any failure or malfunction of aircraft supplied power or data will not result in an unsafe condition of the propeller pitch setting or prevent

continued safe operation of the propeller.

(2) Be designed and constructed so that no single failure or malfunction, or probable combination of failures of electrical or electronic components of the propeller control system, result in an unsafe condition.

(3) Be tested to its environmental limits including transients (variations) caused by lightning and high intensity radiated fields (HIRF) and demonstrate no adverse effects on the control system operation and performance or resultant damage. These tests shall include, but not be limited to, the following:

(i) Lightning strikes, such as multiple-stroke and multiple-burst

(ii) Pin-injected tests to appropriate wave forms and levels

(iii) HIRF susceptibility tests

(4) Be demonstrated by analysis/tests that associated software is designed and implemented to prevent errors that would result in an unsafe propeller pitch setting or an unsafe condition.

(5) Be designed and constructed so that a failure or malfunction of electrical or electronic components in the propeller or control system will not prevent safe operation of any remaining propeller that is installed on the aircraft.

(b) For the purpose of these special conditions, an unsafe condition is considered to exist for each of the following conditions:

(1) Loss of control of the propeller,

(2) Instability of a critical function,

(3) Unwanted change in propeller pitch causing improper thrust/overspeed, and

(4) Unwanted action of a critical control function resulting in propeller flat pitch or reverse.

Issued in Burlington, Massachusetts, on November 16, 1995.

Jay Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 95-28995 Filed 11-27-95; 8:45 am]

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14 CFR Part 71

[Airspace Docket No. 95-AGL-10]

Establishment of Class E Airspace; Pinecreek, MN; Correction

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This action corrects an error in the description of Piney Pinecreek Border Airport, MN Class E5 airspace published in a final rule on October 18, 1995, Airspace Docket Number 95-AGL-10.

EFFECTIVE DATE: 0901 UTC, January 4, 1996.

FOR FURTHER INFORMATION CONTACT:

Eleanor J. Williams, Air Traffic Division, System Management Branch, AGL-530, Federal Aviation Administration, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (708) 294-7568.

SUPPLEMENTARY INFORMATION:**History**

Federal Register document 95-25848, Airspace Docket 95-AGL-10, published on October 18, 1995, (60 FR 53870), established Class E5 airspace at Piney Pinecreek Border Airport, Pinecreek, MN. An error was discovered in the description of the airspace in the latitude. This action corrects the description of the minutes of latitude.

Correction to Final Rule

Accordingly, pursuant to the authority delegated to me, the airspace designation for the Piney Pinecreek Border Airport, Pinecreek, MN, Class E5 airspace, as published in the Federal Register on October 18, 1995 (60 FR 53870), (Federal Register document 95-25848; page 53871, column 2), is corrected in the incorporation by reference in 14 CFR 71.1 as follows:

Paragraph 6005 The Class E Airspace Areas Extending Upward From 700 Feet or More Above the Surface of the Earth

* * * * *

AGL MN E5 Pinecreek, MN [Corrected]

Piney Pinecreek Border Airport, MN
(Lat. 48°59'45" N, long. 95°58'45" W)

That airspace extending upward from 700 feet above the surface within a 7-mile radius of the Piney Pinecreek Border Airport; excluding that area north of lat. 49°00'00" N (Canadian-U.S. boundary).

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Maureen Woods,

Acting Manager, Air Traffic Division.

[FR Doc. 95-28841 Filed 11-27-95; 8:45 am]

BILLING CODE 4910-13-M

14 CFR Part 97

[Docket No. 28391; Amdt. No. 1696]

Standard Instrument Approach Procedures; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This amendment establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs) for operations at certain airports. These regulatory actions are needed because of changes occurring in the National Airspace System, such as the commissioning of new navigational

facilities, addition of new obstacles, or changes in air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: An effective date for each SIAP is specified in the amendatory provisions.

Incorporation by reference approved by the Director of the Federal Register on December 31, 1980, and reapproved as of January 1, 1982.

ADDRESSES: Availability of matter incorporated by reference in the amendment is as follows:

For Examination—1. FAA Rules Docket, FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591;

2. The FAA Regional Office of the region in which affected airport is located; or

3. The Flight Inspection Area Office which originated the SIAP.

For Purchase—Individual SIAP copies may be obtained from:

1. FAA Public Inquiry Center (APA-200), FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591; or

2. The FAA Regional Office of the region in which the affected airport is located.

By Subscription—Copies of all SIAPs, mailed once every 2 weeks, are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

FOR FURTHER INFORMATION CONTACT: Paul J. Best, Flight Procedures Standards Branch (AFS-420), Technical Programs Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-8277.

SUPPLEMENTARY INFORMATION: This amendment to part 97 of the Federal Aviation Regulations (14 CFR part 97) establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs). The complete regulatory description on each SIAP is contained in the appropriate FAA Form 8260 and the National Flight Data Center (FDC)/Permanent (P) Notices to Airmen (NOTAM) which are incorporated by reference in the amendment under 5 U.S.C. 552(a), 1 CFR part 51, and § 97.20 of the Federal Aviation Regulations (FAR). Materials incorporated by reference are available for examination or purchase as stated above.

The large number of SIAPs, their complex nature, and the need for a

special format make their verbatim publication in the Federal Register expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, but refer to their graphic depiction of charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained in FAA form documents is unnecessary. The provisions of this amendment state the affected CFR (and FAR) sections, with the types and effective dates of the SIAPs. This amendment also identifies the airport, its location, the procedure identification and the amendment number.

The Rule

This amendment to part 97 of the Federal Aviation Regulations (14 CFR part 97) establishes, amends, suspends, or revokes SIAPs. For safety and timeliness of change considerations, this amendment incorporates only specific changes contained in the content of the following FDC/P NOTAM for each SIAP. The SIAP information in some previously designated FDC/Temporary (FDC/T) NOTAMs is of such duration as to be permanent. With conversion to FDC/P NOTAMs, the respective FDC/T NOTAMs have been cancelled.

The FDC/P NOTAMs for the SIAPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Approach Procedures (TERPS). In developing these chart changes to SIAPs by FDC/P NOTAMs, the TERPS criteria were applied to only these specific conditions existing at the affected airports. All SIAP amendments in this rule have been previously issued by the FAA in a National Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of immediate flight safety relating directly to published aeronautical charts. The circumstances which created the need for all these SIAP amendments requires making them effective in less than 30 days.

Further, the SIAPs contained in this amendment are based on the criteria contained in the TERPS. Because of the close and immediate relationship between these SIAPs and safety in air commerce, I find that notice and public procedure before adopting these SIAPs are impracticable and contrary to the public interest and, where applicable, that good cause exists for making these SIAPs effective in less than 30 days.

Conclusion

The FAA has determined that this regulation only involves an established